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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/610,160	07/05/2000	Bruce Horn	MK1-003US	4511

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EXAMINER

BROWN, TIMOTHY M

ART UNIT	PAPER NUMBER
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3625

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/610,160

Applicant(s)

HORN ET AL.

Examiner

Tim Brown

Art Unit

3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 and 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-24 have been examined.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 for being directed to a process that does not produce a concrete and tangible result. For example, claim 1 recites "[a] method comprising: maintaining an individual investor's portfolio; and determining a performance metric that objectively measures performance of the investor's portfolio despite non-uniform changes to the investor's portfolio that affect value of the investor's portfolio but not performance. Thus, claim 1 solely results in the manipulation of an abstract idea and is devoid of any limitation that has a practical application in the technological arts. Claims 2-10 also lack any limitation that has a practical application in the technological arts. Thus, claims 1-10 are rejected under 35 U.S.C 101.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 6-9, 13 and 16-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 6, 13 and 16 variously recite “adjusting the number of portfolio shares in response to portfolio events that change a value of the investor’s portfolio without affecting performance of the investor’s portfolio” This language renders the scope of the claims indefinite because it supports two different interpretations of the adjusting step. First, “without affecting performance of the investor’s portfolio” can be interpreted to refer to how the portfolio shares are adjusted. That is, the shares may be adjusted in such a way as to avoid affecting the performance of the investor’s portfolio. Second, “without affecting performance of the investor’s portfolio” may refer to portfolio events that change a value of the investor’s portfolio, but do not affect performance of the portfolio. If Applicants’ invention is directed to the latter interpretation, it is recommended claim 2 be amended to recite “adjusting the number of portfolio shares in response to portfolio events, wherein the portfolio events change a value of the investor’s portfolio, but do not affect performance” This, or other appropriate correction, is required.

In addition, the recitation of “adjusting the number of portfolio shares in response to portfolio events that change a *value* of the investor’s portfolio” fails to particularly point out and distinctly claim Applicants’ invention. First, “a *value*” does not inform one possessing an ordinary level of skill what aspect of the investor’s portfolio is changing. Moreover, Applicants’ disclosure does not lend any clarity to the limitation “a *value*.” Therefore, “adjusting the number of portfolio shares in response to portfolio events that change a *value* of the investor’s portfolio” renders the scope of claims 2, 6 and 16 indefinite.

Claims 7-9 depend from claim 6 and are therefore rejected under 35 U.S.C. 112, second paragraph for incorporating the deficiencies of claim 6.

Claims 17 and 18 depend from claim 16 and are therefore rejected under 35 U.S.C. 112, second paragraph for incorporating the deficiencies of claim 16.

Claims 13 recites "a module that adjusts the number of portfolio shares in response to portfolio events that change a *value* of the investor's portfolio." As noted above, "a value" renders the scope of the claim indefinite. Appropriate correction is required.

Claim 19 recites the limitation "detect portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio." This language supports two interpretations of the claim. "[W]ithout affecting performance of the investor's portfolio" may be interpreted to mean that detecting does not affect performance of the portfolio. In contrast, "without affecting performance of the investor's portfolio" may provide that the portfolio events do not affect the performance of the investor's portfolio. Thus, the claim language "detect portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio" renders the scope of claim 19 indefinite. Appropriate correction is required.

Claims 20 and 21 depend from claim 19 and are therefore rejected under 35 U.S.C. 112, second paragraph for incorporating the deficiencies of claim 19.

Claims 7 and 20 are further rejected under 35 U.S.C. 112, second paragraph for reciting an improper Markush limitation. Claims 7 and 20 each recite "a group of events comprising" MPEP 2173.05(h) states alternative expressions are permitted if they

do not present any uncertainty or ambiguity with respect to the scope of the claims. In the present case, "a group of events comprising" is an open-ended limitation that does not clarify the content of the group. It is recommended Applicants amend each of claims 7 and 20 to recite "a group of events consisting of" This, or other appropriate correction, is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1, 3-5, 11, 12, 14, 15, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over a Newsbytes article (*UK - Web-Based Virtual Stock Market Game A Success*, Newsbytes (July 17, 1997)) ("UK") in view of a Microbanker article (*Software introductions*, Microbanker, vol. 15, no. 3 (March 1995)) ("Microbanker").**

Regarding claims 1 and 3-5, UK teaches a Web site for conducting an online investment contest wherein users are permitted to maintain a hypothetical portfolio on a server. Users are permitted to monitor share prices by activating a "Ring Stockbroker" button. The Web site automatically calculates and distributes dividends and capital changes to the users' portfolios. After a period of time, UK awards prizes to users having the highest valued portfolios. UK's Web site also provides users with hot links to tips on managing portfolios. See entire document.

UK does not expressly teach *determining a performance metric that objectively measures performance of the investor's portfolio despite non-uniform changes to the investor's portfolio that affect value of the investor's portfolio but not performance.*

However, Microbanker teaches software that allows users to assess the performance of a fund based on user-defined goals including maximum offer price per share.

Microbanker, p. 2. At the time of Applicants' invention, it would have been obvious to one of ordinary skill in the Internet commerce art, to modify UK with Microbanker's teaching of *determining a performance metric that objectively measures performance of the investor's portfolio despite non-uniform changes to the investor's portfolio that affect value of the investor's portfolio but not performance.* This combination would provide UK with another basis for calculating portfolio value thereby allowing UK to provide an award based on per-share value.

Regarding claims 11, 12, 14 and 15, UK teaches a Web site for conducting an online investment contest wherein users are permitted to maintain a hypothetical portfolio on a server. Users are permitted to monitor actual share prices by activating a "Ring Stockbroker" button. The Web site automatically calculates and distributes dividends and capital changes to the users' portfolios. After a period of time, UK awards prizes to users having the highest valued portfolios. UK's Web site also provides users with hot links to tips on managing portfolios. See entire document.

UK does not expressly teach *a module to determine performance of the investor's portfolio as a function of the value of the associated number of portfolio shares.* However, Microbanker teaches software having programming for evaluating

fund performance based on user-defined goals, including maximum offering price per share. Microbanker, p. 2. At the time of Applicants' invention, it would have been obvious to one having ordinary skill in the Internet commerce art, to modify UK with Microbanker's teaching of *a module to determine performance of the investor's portfolio as a function of the value of the associated number of portfolio shares*. This combination would enable users to track the performance of a hypothetical portfolio based on a wider range of criteria.

Regarding claims 22 and 23, UK teaches a Web site for conducting an online investment contest wherein users are permitted to maintain a hypothetical portfolio on a server. Users are permitted to monitor actual share prices by activating a "Ring Stockbroker" button. The Web site automatically calculates and distributes dividends and capital changes to the users' portfolios. After a period of time, UK awards prizes to users having the highest valued portfolios. UK's Web site also provides users with hot links to tips on managing portfolios. See entire document.

UK does not expressly teach *objectively measuring performance of the investment accounts for individual investors despite non-uniform changes to the investment accounts that affect value of the investment account but not performance*.

However, Microbanker teaches software that permits users to evaluate fund performance based on user-defined goals, including offering price per share.

Microbanker, p. 2. At the time of Applicants' invention, it would have been obvious to one of ordinary skill in the art to modify UK to include Microbanker's teaching of objectively measuring performance of the investment accounts for individual investors

despite non-uniform changes to the investment accounts that affect value of the investment account but not performance. This combination would provide UK with another means of evaluating a user's portfolio.

7. Claims 2, 13 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK in view of a Microbanker and Earle (US Pat. No. 5,262,942).

Regarding claim 2, UK and Microbanker teach all the limitations discussed under claim 1. UK and Microbanker do not expressly teach:

adjusting the number of portfolio shares in response to portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio; and

deriving an investor's total account value by dividing a total value of the investor's portfolio by a current number of portfolio shares.

However, the "Background of the Invention" section of Earle discloses the management of an open-ended mutual fund wherein a purchaser acquires any number of mutual fund shares by transferring assets, such as cash, to a fund advisor. Col. 1, lines 19-26. A fund advisor then uses the assets to purchase securities or other prospectus-approved investments on behalf of the purchaser. Col. 1, lines 26-32. A transfer agent then issues to the purchaser the number of shares equivalent to the value of the assets provided by the customer. Col. 1, lines 33-35. Fund share prices are periodically determined using a net asset value calculation. Col. 1, lines 44-50. At the time of Applicants' invention, it would have been obvious to modify UK and Microbanker to include Earle's teaching of the adjusting and deriving steps recited in

claim 2. By implementing this combination, one of ordinary skill in the art could derive an online investment contest wherein contestants play the role of a mutual fund advisor. Thus, winning contestants could be selected based upon their performance as determined by share price appreciation.

Regarding claim 13, UK and Microbanker teach all the limitations discussed under claim 11. UK does not expressly teach *wherein the module adjusts the number of portfolio shares in response to portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio, the number of shares being adjusted to an amount that maintains a constant performance metric*. However, Earle teaches maintaining a constant performance metric by distributing earnings pro rata to shareholders in the form of dividends. Col. 5, lines 9-12. Therefore, at the time of Applicants' invention, it would have been obvious to one of ordinary skill in the art, to modify UK and Microbanker to include *wherein the module adjusts the number of portfolio shares in response to portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio, the number of shares being adjusted to an amount that maintains a constant performance metric* as suggested by Earle. This combination would allow users to maintain a constant net asset value thereby improving their funds performance by reducing price volatility.

Regarding claims 19 and 21 UK teaches one or more computer-readable media comprising computer-executable instructions that, when executed, direct a computing device to:

Maintaining, via the internet, a performance metric on an individual investor's portfolio, the investor's portfolio having a value and an associated number of portfolio shares, and detect portfolio events that change a value of the investor's portfolio. See entire document.

UK does not expressly teach *the performance metric being a function of the value and the number of portfolio shares, and detect portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio*. However, Microbanker teaches software that allows users to evaluate fund performance based on user-defined goals, including net asset value and maximum offering price per share. See page 3. At the time of Applicants' invention, it would have been obvious to one of ordinary skill in the art, to modify UK to include Microbanker's teaching of *the performance metric being a function of the value and the number of portfolio shares, and detect portfolio events that change a value of the investor's portfolio without affecting performance of the investor's portfolio*. This combination would provide UK with another parameter for determining each user's portfolio performance.

UK and Microbanker do not expressly teach *upon occurrence of a portfolio event, adjust the number of portfolio shares to maintain a constant performance metric*.

However, Earle teaches maintaining a constant performance metric by distributing earnings pro rata to shareholders in the form of dividends. Col. 5, lines 9-12.

Therefore, at the time of Applicants' invention, it would have been obvious to one of ordinary skill in the art, to modify UK and Microbanker to include *upon occurrence of a portfolio event, adjust the number of portfolio shares to maintain a constant*

performance metric as suggested by Earle. This combination would allow users to maintain a constant net asset value thereby improving their funds performance by reducing price volatility.

Regarding claim 20, UK further teaches wherein the portfolio events are selected from a group of events comprising cash deposit, cash withdrawal, stock split, dividend, merger, acquisition, and divestiture. See entire document.

8. Claims 6-10 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK in view of Earle (US Pat. No. 5,262,942).

UK teaches a Web site for conducting an online investment contest wherein users are permitted to maintain a hypothetical portfolio on a server. Users are permitted to monitor share prices by activating a "Ring Stockbroker" button. The Web site automatically calculates and distributes dividends and capital changes to the users' portfolios. After a period of time, UK awards prizes to users having the highest valued portfolios. UK's Web site also provides users with hot links to tips on managing portfolios. See entire document.

However, the "Background of the Invention" section of Earle discloses the management of an open-ended mutual fund wherein a purchaser acquires any number of mutual fund shares by transferring assets, such as cash, to a fund advisor. Col. 1, lines 19-26. A fund advisor then uses the assets to purchase securities or other prospectus-approved investments on behalf of the purchaser. Col. 1, lines 26-32. A transfer agent then issues to the purchaser the number of shares equivalent to the value of the assets provided by the customer. Col. 1, lines 33-35. Fund share prices

are periodically determined using a net asset value calculation. Col. 1, lines 44-50. At the time of Applicants' invention, it would have been obvious to modify UK and Microbanker to include Earle's teaching of the adjusting and deriving steps recited in claim 2. By implementing this combination, one of ordinary skill in the art could derive an online investment contest wherein contestants play the role of a mutual fund advisor. Thus, winning contestants could be selected based upon their performance as determined by share price appreciation.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over UK in view of a Microbanker and Official Notice.

UK and Microbanker teach all the limitations discussed under claim 22. UK and Microbanker does not expressly teach *wherein the investor computing devices and the investment services server communicate via a wireless network*. However, the Examiner takes Official Notice that communicating with an Internet server via a wireless network is old and well known in the art. Therefore, at the time of Applicants' invention, it would have been obvious to modify UK and Microbanker to include *wherein the investor computing devices and the investment services server communicate via a wireless network*. This combination would allow users to access the investment server despite the absence of a hard-wired network.

10. Claims 2, 13 and 19-21 are rejected, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over UK in view of a Microbanker, Earle (US Pat. No. 5,262,942) and Higgins (Higgins, J. M. *Janus Capital's John Schreiber*, Broadcasting and Cable, Vol. 128, no. 34 (August 17, 1998) p. 56).

UK, Microbanker and Earle teach all the limitations discussed under claims 1, 11 and 19. Assuming, arguendo, UK, Microbanker and Earle do not expressly teach *assigning an arbitrary number of portfolio shares*, the Examiner notes this limitation is met by Higgins. That is, Higgins discloses assigning analysts stocks from several different industry sectors. See page 1. At the time of Applicants' invention, it would have been obvious to one of ordinary skill in the art, to modify UK, Microbanker and Earle to include *assigning an arbitrary number of portfolio shares* as taught by Higgins. This combination would provide a simulated investment scheme wherein users are required to manage assets in a variety of industries.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Brown whose telephone number is (703) 305-1912. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on (703) 308-1344. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Application/Control Number: 09/610,160
Art Unit: 3625

Page 14

Tim Brown
Examiner
Art Unit 3625

TB
August 5, 2003


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